

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII

IN THE MATTER OF	)	
	)	
Francis E. Warren Air Force Base	)	
United States Department of the	)	
Air Force	)	
	)	
Cheyenne, Wyoming	)	
PWS ID # WY5680122	)	
	)	
Respondent	)	EMERGENCY
	)	ADMINISTRATIVE ORDER
Proceedings under section 1431	)	
of the Safe Drinking Water Act,	)	
42 U.S.C. § 300i	)	Docket No. <b>SDWA-08-2003-0001</b>
	)	

**I. STATUTORY AUTHORITY**

The following Findings are made and Order issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency (EPA) by section 1431 of the Safe Drinking Water Act (the "Act"), 42 U.S.C. § 300i, as properly delegated to the Supervisors of the Technical and Legal Enforcement Programs of the Office of Enforcement, Compliance and Environmental Justice, EPA Region VIII.

**II. JURISDICTION**

- A. EPA has jurisdiction to issue emergency orders pursuant to the emergency powers provision of the Act, section 1431 of the Act, 42 U.S.C. § 300i.
- B. EPA has primary enforcement responsibility for the Act in the State of Wyoming.

### **III. FINDINGS**

- A. Francis E. Warren Air Force Base, United States Department of the Air Force ("Respondent") is a Federal Agency and therefore a "person" within the meaning of 40 C.F.R. § 141.2.
- B. Respondent owns and/or operates the Francis E. Warren Air Force Base Water System located in Cheyenne, Wyoming for the provision to the public of piped water for human consumption.
- C. Respondent's water system regularly serves at least 25 year-round residents and is therefore a "public water system" within the meaning of Section 1401(4) of the Act, 42 U.S.C. § 300f(4), and a "community water system" within the meaning of 40 C.F.R. § 141.2.
- D. Respondent owns and/or operates a public water system and is therefore a "supplier of water" within the meaning of section 1401(5) of the Act, 42 U.S.C. § 300f(5) and 40 C.F.R. § 141.2. Respondent is therefore subject to the requirements of Part B of the Act, 42 U.S.C. § 300g, and its implementing regulations, 40 C.F.R. Part 141.
- E. According to an October 21, 1998, sanitary survey conducted by EPA, Respondent operates a system that purchases treated surface water from another public

water system, the Cheyenne Board of Public Utilities, and serves approximately 3,800 persons per day through 400 service connections and is operational all year. On or about February 25, 2000, Respondent notified EPA that it serves approximately 5,100 persons per day through 400 service connections.

- F. Analysis of water samples taken by Respondent in the Carlin Heights Subdivision on or about August 15 through August 20, 2002 indicated lead levels ranging from .0017 to .210 milligrams/liter ("mg/L"), with an average of .046 mg/L. Levels of lead in water sampled from taps in residences served were .16 mg/L at the 90<sup>th</sup> percentile, and 9 out of 21 homes sampled exceeded .015 mg/L for lead. Analysis of water samples taken by Respondent in the Carlin Heights Subdivision on or about September 4, 2002 indicated lead levels ranging from less than .001 to .40 mg/L, with an average of .063 mg/L. These results exceed the action level of .015 mg/L and EPA's short-term acceptable risk of .030 mg/L. EPA has determined that the water supplied by the System may present an imminent and substantial endangerment to the health of persons.
- G. 40 C.F.R. § 141.80(c) defines the action level for lead as the concentration of lead in more than 10 percent of

tap water samples collected during any monitoring period conducted in accordance with 40 C.F.R. § 141.86 is greater than 0.015 mg/L (i.e., if the "90<sup>th</sup> percentile" is greater than 0.015 mg/L).

- H. Respondent has complied with 40 C.F.R. § 141.90(a) and reported to the Environmental Protection Agency that during the compliance period from January 2000 - December 2002, levels of lead in water sampled during August 15th - 20th, 2002 from taps in residences served were .16 mg/L at the 90th percentile. This monitoring exceeded the lead action level of .015 mg/L (40 C.F.R. § 141.80) and EPA's short-term acceptable risk of .030 mg/L. Samples taken also showed that 9 out of 21 homes sampled exceeded the short-term acceptable risk of .030 mg/L for lead. In its current state, the water supplied by your public water system may pose an imminent and substantial endangerment to the health of persons.
- I. The EPA has determined that continuous ingestion of elevated levels of lead in water may pose a risk to human health, particularly that of young children and pregnant women. Accumulations of lead in young children can slow mental and physical development and also cause damage to the brain, red blood cells and the kidneys.

- J. Therefore, water provided by Respondent to the residents of Francis E. Warren Air Force Base poses an imminent and substantial endangerment to the health of its residents. Residents' health is substantially endangered by their ingestion of lead in waters that residents legitimately assume is safe for human consumption. This imminent and substantial endangerment will continue until and unless preventive actions are taken.
- K. The State of Wyoming has not acted to protect public health because they do not have authority under the Act.
- L. Local Authorities have not acted to protect public health because they do not have authority under the Act.
- M. On or about October 3 and 4, 2002, EPA consulted with State and Local authorities regarding the information upon which this Order is based.
- N. This Order and the requirements set forth herein are necessary to ensure adequate protection of public health based on EPA's primary enforcement responsibility for the Act in Wyoming.
- O. Respondent informed EPA on or about October 4, 2002 that it is providing blood lead level testing to all

water users of the F.E. Warren Air Force Base Water System at no cost to the users.

#### **IV. ORDER**

Based on the foregoing Findings, and pursuant to section 1431(a) of the Act, 42 U.S.C. § 300i(a) IT IS ORDERED:

##### **A. INTENT TO COMPLY**

1. Within 24 hours of receipt of this Order, Respondent shall notify EPA in writing of its intention to comply with the terms of this Order.
2. The written response shall include a general plan for compliance with each of the elements of this Order.

##### **B. ALTERNATIVE WATER SUPPLY**

1. Upon the effective date of this Order, Respondent shall notify all water users of the F.E. Warren Air Force Base Water System that an alternative water supply is available. The alternative water supply shall be from a licensed water distributor, licensed by the State of Wyoming Department of Agriculture, Consumer Health Services Program, and must be made available at no cost as needed for drinking and cooking until Respondent receives notification from EPA that alternative water is no longer necessary.

2. Respondent shall provide a sufficient quantity of water for reasonable domestic uses, at a minimum, two liters daily, at each service connection for each person residing at that service connection.
3. Within 24 hours of receipt of this Order, Respondent shall submit certification to EPA of compliance with paragraph IV.B.1. above.

**C. CORRECTIVE ACTION MEASURES**

1. Within fifteen (15) days of the effective date of this Order, Respondent shall submit a plan to EPA for providing a permanent supply of water which meets the requirements of 40 C.F.R. part 141 subpart I. The plan shall include the following items:
  - a. evaluation of the cause of the lead action level violations;
  - b. expansion of site sampling plan to include representative sites throughout the distribution system, including but not limited to day care centers, schools and hospitals;
  - c. identification of location of lead service lines Respondent has not already removed;
  - d. schedule for removing lead service lines;

- e. status of corrosion control plan, which was approved by EPA on August 10, 2000, and required to be completed on or before August 10, 2002;
  - g. all modifications necessary to bring Respondent's water system into compliance with 40 C.F.R. part 141 subpart I;
  - h. a schedule for implementing all modifications, including specific milestone dates and a final compliance date.
2. The schedule for implementing modifications as set forth in paragraph IV.C.1. above shall be incorporated into this Order upon written approval by EPA.
3. Respondent shall submit monthly reports to EPA on progress on all corrective measures identified in paragraphs VIC.1. above. Each report shall include a description of any activity conducted on the public water supply including a specific listing and status of each item identified in paragraphs VIC.1. above. Reports shall be postmarked no later than the 15<sup>th</sup> of each month, with the first report postmarked no later than November 15, 2002.



**D. OTHER REQUIREMENTS**

1. Respondent shall take the following measures at
  - (i) those households that were sampled during August and/or September 2002 and were found to have lead levels of .030 mg/L or more and (ii) at those households served by the same service connections:
    - a. Within 24 hours of the date of this Order, inform the occupants of the lead level and provide the public education materials described in 40 C.F.R. §§ 141.85(a) and (c)(2)(i).
    - b. At those households that were previously sampled and were found to have lead levels of .030 mg/L or more, within 7 days of the effective date of this Order, take first-draw samples and flush samples after the water has been run for 1, 5, and 10 minutes to determine at what time and to what extent the lead levels decrease.
    - c. At those households that were not previously sampled, but are served by the same service connection as those systems described in paragraph VID.2.b. of this Order, within 7

days of the date of this Order, take first-draw samples and flushed samples after the water has been run for 1, 5, and 10 minutes to determine whether these households have lead levels of .030 mg/L or more, and at what time interval and to what extent the lead levels decrease.

- d. Have samples analyzed by an EPA-certified laboratory, in accordance with 40 C.F.R. § 141.90;
- e. Within 24 hours of receipt of the analytical results of the samples collected in paragraph 2(b) or 2(c) of this Order, inform the occupants of the results of the samples collected at their households, and submit the results to EPA within 10 days as required by 40 C.F.R. § 141.90.

- 2. Within 7 days of the date of this Order, Respondent shall deliver a public education program as described in 40 C.F.R. § 141.85. Copies of all material used in this program shall be provided to EPA at the completion of this program.

3. Within 14 calendar days of the effective date of this Order, conduct source water monitoring in accordance with 40 C.F.R. §§ 141.88 and 141.89 to identify source water lead levels.
4. Within 24 hours of receipt of the analytical results, report the source water monitoring results, in accordance with 40 C.F.R. § 141.90(b), by certified mail to EPA.
5. On August 2, 2002, Respondent completed a corrosion control study in accordance with 40 C.F.R. § 141.82(c) and submitted the study to the EPA in accordance with 40 C.F.R. § 141.90(2)(c), along with a recommended optimal corrosion control treatment method and implementation schedule. Respondent's optimal corrosion control treatment method included raising the pH to control copper corrosion within the distribution system.
6. On August 10, 2002, EPA approved in writing Respondent's optimal corrosion control treatment and installation schedule, the installation schedule of the selected alternative becomes part of this Order and binds Respondent thereto. As set forth in the 40 C.F.R. part 141 subpart I, EPA required full scale implementation and

optimization of the corrosion control treatment by August 10, 2002, 24 months from the date of the letter.

7. Conduct 2 sets of follow-up lead and copper tap monitoring within a six-month time frame, from the date it is required to complete installation of optimum corrosion control treatment. One set of samples must be collected during the winter months and the other during the months of June, July, August, and/or September. These samples must be collected in accordance with 40 C.F.R. § 141.86.
8. Collect samples to determine water quality parameters in accordance with 40 C.F.R. § 141.87 during the same time period as the follow-up tap monitoring, described in paragraph 3.e. of this section. The samples must be collected, analyzed, and reported in accordance with 40 C.F.R. §§ 141.86, 141.89, and 141.90.
9. Meet the monitoring, analytical, and reporting requirements for lead and copper tap monitoring and reporting and water quality parameters outlined in 40 C.F.R. §§ 141.86, 141.87, 141.89, and 141.90(d) and to meet water quality parameter levels or ranges that have been set by EPA. The

timing of this monitoring and the number of samples to be collected shall be in accordance with 40 C.F.R. §§ 141.86(d)(3) and (4) and 141.87(d) and (e). Respondent shall be required to make any adjustments in corrosion control treatment specified by the EPA to meet the water quality parameters.

10. If the 90th percentile level still exceeds the lead action level in tap water samples after the installation of optimal corrosion control treatment, Respondent will be required to replace lead service lines as outlined in 40 C.F.R. § 141.84 at a rate of 10 percent per year, or at a more rapid rate, if Respondent is notified by EPA in writing. Respondent may cease replacing lead service lines whenever the system meets the lead action level in two consecutive compliance periods.

**E. PUBLIC NOTICE**

1. Respondent provided public notice to the users of the water system on or about September 27, 2002. The public notice was insufficient because it incorrectly stated that the "water is safe to use for all purposes." The public notice also failed

to notify consumers that alternative water is available at no cost to the consumers.

2. No later than 24 hours of receipt of this Order, Respondent shall provide an additional corrected public notice of the violations specified in this Order in the affected area. This public notice shall be given in one or more of the following forms of delivery: (1) Appropriate broadcast media (such as radio and television); (2) Posting of the notice in conspicuous locations throughout the area served by the water system, including, but not limited to, posting over every faucet at the water system; (3) Hand delivery of the notice to persons served by the water system; or (4) Another delivery method approved in writing by EPA. The notice shall be repeated at least once every 3 months by mail, hand delivery or posting as long as the violation exists. Respondent shall comply with any additional public notification requirements that may be established by EPA. Upon the effective date of this Order, Respondent shall comply with the public notification requirements at 40 C.F.R. § 141.201 et seq. following any future NPDWR violation. Respondent shall submit a

copy of the public notice to EPA within 10 days of completion of the public notice, as required by 40 C.F.R. § 141.31(d).

3. The public notice shall include the following information:

a. All requirements as specified in

40 C.F.R. § 141.205 including:

- i. A description of the violation, including the contaminant of concern, and the contaminant level;
- ii. When the violation or situation occurred;
- iii. Any potential adverse health effects from the violation or situation (see section VI.F.3.b. below);
- iv. The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water;
- v. Whether alternative water supplies should be used (see section VI.B. above regarding alternative water provisions);
- vi. What actions consumers should take, including when they should seek medical

- help, if known (ie blood lead level testing, if available);
  - vii. What the system is doing to correct the violation or situation;
  - viii. When the water system expects to return to compliance or resolve the situation;
  - ix. The name, business address, and phone number of the water system owner, operator, or designee of the public water system as a source of additional information concerning the notice; and
  - x. A statement to encourage the notice recipients to distribute the public notice to other persons served.
- b. Mandatory health effects language as specified in 40 C.F.R. § 141.205(d)(1), Appendix B to Subpart Q of Part 141. This language is as follows:

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.



**H. REPORTING REQUIREMENTS**

Unless otherwise specified, all reports and  
notifications herein required shall be submitted to:

Olive Hofstader  
US Environmental Protection Agency  
Technical Enforcement Program (8ENF-T)  
999 18<sup>th</sup> Street Suite 300  
Denver, Colorado 80202-2466  
Telephone (800)227-8917 X 6467 or (303) 312-6467

**VI. GENERAL PROVISIONS**

- A. This Order does not constitute a waiver, suspension, or modification of the requirements of 40 C.F.R. § 141.1 et seq., or the Safe Drinking Water Act, which remain in full force and effect. Issuance of this Order is not an election by EPA to forgo any civil or criminal action otherwise authorized under the Act.
- B. Violation of any term of this Order instituted under section 1431(a) of the Act, 42 U.S.C. § 300i(a), may subject the Respondent to a civil penalty of not to exceed \$15,000 for each day in which such violation occurs or failure to comply continues, assessed by an appropriate U.S. District Court under section 1431(b) of the Act, 42 U.S.C. § 300i(b).

C. The effective date of this Order shall be the date of  
issuance.

Issued this 4TH day of October, 2002.

**Melanie L. Pallman for/**

Diane L. Sipe, Director  
Technical Enforcement Program  
Office of Enforcement, Compliance  
and Environmental Justice

**SIGNED**

Michael T. Risner, Director  
David J. Janik, Supervisory Attorney  
Legal Enforcement Program  
Office of Enforcement, Compliance  
and Environmental Justice

**THIS DOCUMENT WAS FILED IN THE REGIONAL HEARING CLERK'S OFFICE ON  
OCTOBER 4, 2002.**